Chapter 4 - Program Models

The program model is the system that facilitates interaction of gifted [and talented] youth with curriculum to produce learning.

—John Feldhusen
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Introduction

Program models manage how gifted students will be organized so that learning is most effective (Rogers, 2001). Approved program models for gifted and talented have a research base of effectiveness in improving achievement for this group of youngsters.

The National Research Center on the Gifted and Talented has provided the richest source of data on program models. In a two-year study, Marcia Delcourt and her colleagues (1994) collected data on program models from 83 elementary schools in 14 states. The models considered were within-class, pull-out, special class, and special school. The results of the study showed that gifted and talented students in pull-out, special class, and special school models achieve substantially more than gifted and talented students in within-class models. These findings have direct implications for the design and utilization of gifted and talented program models.

Further, Karen Rogers' (2001) systematic review of research studies on program models also indicates the most beneficial grouping arrangements for gifted students are those with full-time grouping, i.e., special school, school-within-a school, full-time gifted program, and self-contained class (Kulik & Kulik, 1982; 1984; 1987). Resource room/pull-out programs showed academic gains for students when those programs extended the regular curriculum (Vaughn, Feldhusen, & Asher, 1991). Vaughn and her colleagues found that critical and creative thinking improved in pull-out programs where those skills were emphasized for a full year. They also reported small positive self-esteem gains.

Regulation 43-220 calls for program models that facilitate the delivery of curriculum and instruction, teacher/pupil ratios that foster positive results, and appropriate and sufficient time in instruction to assure that the goals and objectives of the program are met (24 S.C. Code Ann. Regs. 43-220.2(A)(c-e)). Further, the regulation specifies approved gifted and talented program models, teacher/pupil ratios, and number of

minutes of service for gifted and talented students at various grade levels (24 S.C. Code Ann. Regs. 43-220.2 (A)(4)).

Districts must request a waiver from the State Department of Education (SDE) if any program model other than the approved ones is used for primary gifted and talented service. Such requests must be submitted in writing to the Coordinator of Gifted and Talented Programs at the SDE. The request must provide a justification for the waiver, the proposed alternative(s) for delivery of gifted education services, the methods of evaluation, and a process for reporting to the SDE the effect of the model on student academic growth. Waivers are approved on an annual basis. No waivers in student-teacher ratio or minutes of instruction may be granted.

Within a particular district, a number of factors will affect which of the approved program models are selected for implementation. A major factor is the number of students eligible for gifted and talented services at a given grade level and/or school. Community demographics, values, beliefs, commitment to gifted and talented education, past experiences, and funding may also influence the program models that are chosen. Some recommendations to guide selection and development of the program models that best fit with your district are provided.

The chart below indicates the approved gifted and talented program models for South Carolina schools, along with the approved teacher/pupil ratios, appropriate grade levels, and time requirements for each model. Descriptions of the various approved program models are provided in the sections following the chart.

Approved Model (Teacher/Pupil Ratio)	**Grade Levels**	**Minimum Minutes/Year**
Regular Classroom/ Itinerant Teacher (1:10)	Grades 1 & 2*	4500
Multi-Age Classroom (Ratio Not Applicable)	Grades 1 & 2*	Full Time
Resource Room/Pull-out Class or Center (1:15 in Grades 1 & 2; 1:20 in Grades 3 – 8)	Grades 1 & 2*	4500
	Grade 3	4500
	Grades 4–8	7200
Special Class (1:25)	Grades 3–12	8100
Special School (1:25)	Grades 3–12	Full Time
*NOTE: Grades 1 and 2 are not currently funded by the state.		

A school or district may elect to serve students in any of the above approved program models through a consortium agreement with other school districts (24 S.C. Code Ann. Regs. 43-220.2(A)(6)). **As described on page 4-2, any other gifted and talented program model developed by a school district must receive written approval annually from the SDE.**

Approved Program Models for Grades 1 and 2

Regular Classroom/Itinerant Teacher

This is approved as a stand-alone program model for gifted and talented students in grades 1 and 2. An itinerant teacher with an endorsement in gifted and talented education provides services to gifted and talented students in the regular or general education classroom. The itinerant teacher acts as a consultant to the regular classroom teacher—providing information, materials, and guidance on curricular and instructional issues for the gifted and talented students. The itinerant teacher may teach, on some regular basis, a cluster group of gifted and talented students in the regular classroom. A cluster group of gifted and talented students is five to eight students at a particular grade level placed in the same classroom with a teacher qualified and well-suited to work with gifted students (Rogers, 2001). In this model, the itinerant teacher and classroom teacher work together to plan and provide differentiated instruction for the gifted students. The effect size[1] of cluster grouping is .62 (Rogers, 1999). This model works well in schools with one or more "clusters" at a grade level and teachers who desire to work with cluster groups.

Multi-Age Classroom

This is approved as a stand-alone program model for gifted and talented students in grades 1 and 2. The multi-age classroom is an accelerative model in which two grades (e.g., grades 1 and 2) are combined, allowing for more appropriate pacing and challenge for gifted and talented students. This model may enable gifted and talented students to work at an advanced level in one or more curriculum areas. Districts that elect to use this model at other grade levels must request permission annually from the SDE. Permission is granted to districts which have an established written curriculum to support the combined grade levels, a planned scope and sequence with clear effectiveness measures and documentation of students' growth.

Resource Room/Pull-out Class or Center

This program model is approved for gifted and talented students in grades 1 and 2. The resource room/pull-out class or center provides services to identified students through a self-contained class that meets away from the regular classroom. In this

[1] Effect sizes of .30 or higher are considered to have a significant impact on student learning.

model, gifted and talented students are removed from the regular classroom for a specified period each week to receive differentiated instruction. The curriculum usually focuses on enrichment that is directly related to grade level academic standards. Multi-grade grouping may be used in the resource room/pull-out class or center to constitute classes of sufficient size. If this is done, the gifted and talented curriculum should be developed on a two to three year cycle (depending on the number of grades grouped.) *R43-220* specifies minimum time requirements for each grade level. (See chart on page 4-2.) See Recommendations for using pull-out/resource room models below.

NOTE: South Carolina does not currently fund Grades 1 and 2 at the state level.

Approved Program Models for Grades 3 through 12

Resource Room/Pull-out Class or Center (Grades 3–8)

The resource room/pull-out class or center is also an approved program model for grades 3–8. See the section above for a description of this program model. Recommendations (Rogers, 2001) for using this model follow:

1. The model coordinates with and extends the regular curriculum in a planned, systematic way.

2. The model has a unified focus, rather than a potpourri of unrelated units.

3. The model has clearly identified student outcomes and academic gains are tracked.

4. The model is combined with other extension models to provide more comprehensive and complete services for gifted students. Gifted students who spend most of their time in regular classrooms need additional provisions to advance their learning.

When the resource room/pull-out model follows the recommendations above, the impact on student learning is substantial. Rogers (1999) found different effect sizes based on what was taught in the pull-out model. When the model extends the regular curriculum, .65 is the effect size. When the model has critical thinking as a focus, .44 is the effect size. When creativity is the focus, .32 is the effect size.

Special Class (Grades 3–12)

This model is a self-contained gifted and talented class organized around one or more academic disciplines. The special class delivers services to identified students through a curriculum based on state academic standards and differentiated to meet their needs. Curriculum characteristics are similar to those of special schools: the curriculum is rigorous and accelerated. Districts or schools that use this model should provide

services in more than one content or subject area since gifted and talented students may not exhibit strengths in all areas. The special class must meet the 8100 minutes time requirement to assure funding.

When the number of identified students in a special class is significantly lower than the maximum class size established in *R43-220*, the district may develop procedures and criteria for placing high-achieving students in the class to complete the teacher/pupil ratio (1:25). The district will only receive funding for those students identified as gifted and talented according to state criteria.

When there is appropriate curriculum differentiation, full-time ability grouping has an effect size of .49 for elementary students and .33 for secondary students (Rogers, 1999). This model works well in schools and districts with large numbers of identified gifted students.

Special School (Grades 3-12)

Special school is a full-time gifted and talented magnet school or a full-time gifted and talented school-within-a-school. This is a separate, self-contained school or school-within-a-school designed exclusively for gifted and talented learners. Students take their academic core courses with other gifted and talented students. Teachers are responsible for the instruction in academic core courses as well as enrichment. The curriculum is rigorous and accelerated, with instruction geared to a level appropriate to gifted and talented learners. Often, students are drawn from a wider population base than that served by the school itself.

The distinction between the magnet school and the school-within-a-school is in the degree of homogeneity that exists in the total school environment. In a school-within-a-school, gifted and talented students usually join non-identified students in the cafeteria, on the playground, in arts-related courses, and in non-academic subjects such as physical education. In a magnet school, a gifted and talented student spends the entire school day with other identified students. Both types of special schools usually have their own faculty and administration. Only students identified as gifted and talented according to the criteria established in R43-220 can be reported for state funding.

Considerations for Program Model Selections

How does a district or school decide which model or models is the best fit? On what basis is this decision made? First, districts must establish the curriculum goals for their gifted program. "Too often, in programs for gifted students, the chosen model or models determine the goals rather than the goals determining the models used! Only after goals are developed and clarified is it appropriate to make decisions about the models to be used." (Maker, 2004, 28). Models chosen are those most useful in meeting the program's curriculum goals. Further, program models will guide selection of the teaching-learning models (e.g., Paul's Reasoning Model; problem-based learning) and the development of student outcomes. Other considerations

include district size, available resources, and grade levels of service. Extension models which supplement and support program models are critical for a full continuum of services for the gifted learner

Extension Models

In addition to the approved gifted and talented program models, R43-220 encourages extension models to supplement gifted and talented services where possible (24 S.C. Code Ann. Regs. 43-220.2 (A)(5)). The chart below lists examples of extension models.

Grades	Extension Models	
1–2	♦ After-School Program ♦ Grade and/or Subject Acceleration ♦ Independent Study	♦ Individual Educational Plan ♦ Summer Services ♦ Special Training/Services for Parents
3–5	♦ After School Program ♦ Independent Study ♦ Regular Classroom Cluster/Itinerant Model	♦ Regular Classroom Cluster/ Itinerant Model ♦ Summer Services
6–12	♦ After School Program ♦ Exploratory Courses ♦ Independent Study ♦ Mentorships/Internships ♦ Regular Classroom Cluster/Itinerant Model	♦ Regular Classroom Cluster/ Itinerant Model ♦ Seminars ♦ Summer Services

NOTE**: Extension models may <u>not</u> be substituted for one of the approved program models. Extension models are an important component of this continuum of services provided to gifted learners.**

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